

A COMPARISON OF ENVIRONMENTAL NEWS  
CONTENT BETWEEN THE DAILY  
OKLAHOMAN AND THE  
TULSA WORLD

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The fish market wraps fish in paper.  
We wrap news in paper. The content  
is what counts, not the wrapper.

--Bernard Kilgore



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## PREFACE

This study is a content analysis of environmental news in The Tulsa World and The Daily Oklahoman. The primary objective of the study was to compare the two state newspapers with regard to locale of news items, sources used, and the attention given to news items. It was through the investigation of these variables that differences in environmental news treatment between newspapers could be determined.

Many persons have made significant contributions to this project. I would like to express my special appreciation to my thesis adviser, Dr. William R. Steng, associate professor of Journalism and Broadcasting at Oklahoma State University.

Special thanks is expressed to other members of the thesis committee: Dr. Philip E. Paulin, associate professor of Journalism and Broadcasting, and Dr. Walter J. Ward, director of graduate studies in Mass Communication at Oklahoma State University. It was Dr. Ward who perceived my procrastinating nature, but still stuck with me in this endeavor so I could become "one of the 33%."

And for the years of sacrifices, hard work, and constant support, I lovingly dedicate this project to my wife, Nancy, and her love for the things that God has made.

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## CHAPTER I

### INTRODUCTION

#### Background

When the subject of the environment is raised in conversation, the levels of emotion and varying opinions can be staggering. Businessmen and company executives who view success in terms of stock splits, increased profits, and company growth at the expense of the environment invariably meet head on with the environmentalists who believe this earth is controlled by a delicate balance of nature and must not be disrupted.

This confrontation between the corporate and environmental sectors does not seem to be one of our country's traditional battles. In fact, it can be said environmental awareness is in its infant stages. But, how young is this concern for nature and when did it start?

With the advent of Earth Week, David Rubin, media researcher, contends "If it is true, as has been suggested, the nation's news media did not 'discover' the deterioration of the environment until 1969."<sup>1</sup>

While Rubin believes the quantity of environmental news increased because of Earth Week, Commoner, environmental advocate, who also believes the quantity of environmental



news increased, contends the quality of that same news was lacking. Commoner says:

The enthusiasm of Earth Week generated a number of simple and straightforward explanations for the crisis and a corresponding number of simple remedies. Explanations and remedies were based on concepts of economics, politics, human nature, or any other social force in which the person involved was particularly interested. . . . Like a Rorschach inkblot, Earth Week mirrored personal convictions more than objective knowledge.<sup>2</sup>

It has been suggested the public and the mass media must grow together in a learning process when a new topic becomes a national concern. The media must grasp the essence of a subject and the public must put the presented information to practical use.<sup>3</sup>

With the media seeming to assign importance to environmental reporting, one result of Earth Week, television networks began to broadcast pollution programs, newspapers hired environmental reporters, and publishing companies devoted entire books and magazines to the protection of the environment.<sup>4</sup>

The public felt the impact of the environmental "news blitz" and perceived this subject as something with which to be reckoned. In 1972, Erskine conducted a study of public opinion polls and concluded:

By 1970, conservation had crept into the volunteered list of important national problems facing the nation today--though usually behind the perennially massive worries about war, the economy, and social unrest which regularly dominates the list.<sup>5</sup>

There have been times in history when public opinion was deeply imbedded in shortlived subjects such as the "Red

"Scare" of the McCarthy era and the Hollywood blacklisting of entertainment figures. As quickly as these events came into the public eye, time quickly erased them from sight. Will environmental awareness encounter the same fate?

Erskin says:

A miracle of public opinion has been the unprecedented speed and urgency with which ecological issues have burst into the American consciousness. Alarm about the environment sprang from nowhere to major proportions.<sup>6</sup>

Perhaps environmental awareness is just a "flash in the pan," its newness attracting people in a "bandwagon effect." Ruckelshaus, former Environmental Protection Agency administrator, states:

Some people believe that ecology is just a fad, that will burn itself out. But I don't believe that is happening. There is a real deep set feeling among the American people that we must restore at least a part of the heritage of the bright skies, sparkling water, and unscarred land that our forefathers found here.<sup>7</sup>

The American public embraced environmental concerns because of the level of life it wanted. These concerns were not just transmitted by word of mouth. The media developed its own sense of environmental awareness by expanding its coverage, as has been previously stated. Has the media been given any credit for this social awareness?

Murch concluded, in a public opinion survey, that one reason for the great concern of the public about environmental pollution has been the highly influential, if not generated, coverage by the mass media.<sup>8</sup>

Since the beginning of environmental awareness, Earth

Week, a number of studies have attempted to quantify the relationship between the media and the ecology. As one might expect, the studies focusing on the print media are small in scope and regional, as opposed to a national scale.<sup>9</sup>

### The Purpose

As this writer has examined many environmental/press relationship studies, it has become obvious that Oklahoma and the surrounding region have not been studied. The lack of this region of study creates the purpose for this paper. The purpose of this study is to examine the news content of The Daily Oklahoman and The Tulsa World, during the year of 1980, to indicate present day trends in environmental communications in the state of Oklahoma.

The above purpose lends itself to be examined by content analysis. This tool will indicate if there is a significant difference in environmental coverage between the state's two major daily newspapers. The study also will create an awareness of the extent of coverage by the two newspapers.

Laswell sets forth criteria to determine if content analysis is a useful tool in a particular study. He asks, "Is there any statistic on the content of this communication which, if obtainable, will help my research problem?"<sup>10</sup>

This writer contends that the question presented can be answered, "Yes." Laswell cites the aim of all content

analysis studies. He states:

Content analysis aims at a classification of content in more precise, numerical terms than is provided by the impressionistic. It provides a precise meaning of describing the contents of any sort of communications--newspapers, radio programs, films, everyday conversations, verbalized free associations, etc. The operations of content analysis consist of classifying the signs occurring in a communication into a set of appropriate categories. The results state the frequency of occurrence of signs for each category in the classification scheme.<sup>11</sup>

The two Oklahoma dailies selected for this study have an important role in disseminating news throughout the state. They have the two largest circulations in the state and cover the broadest geographic area in Oklahoma. It is essential to determine which daily gives more space and attention, if any, to environmental news so a reader can formulate educated decisions and opinions. Bowman contends:

Since the general public receives much of its information from the media and will base many of its actions on that information, the extent of commitment on the part of the media seems critical.<sup>12</sup>

#### The Objectives

It is the environmental commitment of Oklahoma's two largest daily newspapers that will be examined in this study. The problem to be explored is "Is there a significant difference between The Daily Oklahoman and The Tulsa World in their coverage of environmental news?"

Summarily, the objectives of this study are:

- a) Do both dailies use more regional, national, and international environmental news and editorials than local and state environmental news and editorials?

b) What sources do the dailies use to obtain environmental news?

c) What importance do the two dailies give to environmental news stories as to page play, headline size, and page location?

Thus, this paper examines, through ex-post facto study, the presentation of environmental news by the two major Oklahoma dailies by using content analysis for informing the public about environmental concerns.

ENDNOTES

<sup>1</sup>James A. Swan, "The Environmental Crisis: Why Now?" Environmental Education: Strategies Toward A More Liveable Future, eds. James A. Swan and William B. Stapp (New York, 1974), p. 16.

<sup>2</sup>Steven E. Hungerford and James B. Lemert, "Covering the Environment: A New 'Afghanism,'" Journalism Quarterly, Vol. 50 (Autumn, 1973), p. 475.

<sup>3</sup>Peter M. Sandman, "Mass Environmental Education: Can the Media Do the Job?" Environmental Education: Strategies Toward a More Liveable Future, eds. James A. Swan and William B. Stapp (New York, 1974), p. 211.

<sup>4</sup>James S. Bowman and Kathryn Hanaford, "Mass Media and the Environment Since Earth Day," Journalism Quarterly, Vol. 54 (Spring, 1977), p. 160.

<sup>5</sup>Hazel Erskine, "The Polls: Pollution and Its Costs," Public Opinion Quarterly, Vol. 36 (Spring, 1972), p. 120.

<sup>6</sup>Ibid.

<sup>7</sup>Environmental Forum: An Ecological Awakening, ed. Robert C. Fite, Oklahoma State University Extension (September 27, 1972).

<sup>8</sup>Arvin W. Murch, "Public Concern for Environmental Pollution," Public Opinion Quarterly, Vol. 35 (Spring, 1971), p. 101.

<sup>9</sup>Bowman, p. 160.

<sup>10</sup>Harold D. Laswell, "The Comparative Study of Symbols," Hoover Institute Studies, Series C, No. 1 (1952), p. 12.

<sup>11</sup>Laswell, "Studies in Quantitative Semantics," Language of Politics (New York, 1949), p. 55.

<sup>12</sup>Bowman, p. 164.

## CHAPTER II

### REVIEW OF LITERATURE

#### Introduction

The belief of many individuals, as stated previously, is that the nation's news media did not "discover" the deterioration of the environment until after Earth Week, 1969. The most asked question concerning this media "discovery" is, "What has the media presented to the public in order to inform it about the environment?"

This question could be answered by the media researchers who, with various tests and measurements, could quantify environmental coverage. However, this author's examination of available environmental journalistic research indicates there have been few studies to determine the impact of the media on public awareness. It has been suggested that researchers have been slow to focus on media treatment of environmental news.<sup>1</sup>

Although researchers have been slow to focus on environmental news, the existing studies have laid an important foundation for future investigations. These few studies have provided the framework for this investigation.

## The Gatekeeper Theory and Environmental News

The selection of news depends on the evaluations and judgments made by reporters and editors who control the flow of news. These news personnel control the "gates" of news flow and have been labeled "gatekeepers" by theorists. This relationship of the journalist to the events he reports is known as the "gatekeeper effect."<sup>2</sup>

Several studies link the "gatekeeper" role with dissemination of environmental news. In 1973, Althoff and his associates attempted to determine the attitudes of Kansas media managers toward environmental news coverage and its effects on public opinion. Althoff concludes:

Managers have not fully committed their resources to this problem. Given that the general public receives its information about pollution from the media and will base many of its actions in the pollution area on this information, the extent to which the managers commit their resources to the pollution issue seems critical.<sup>3</sup>

Althoff paints a dreary picture of the advancement of environmental awareness in its first years of existence. He further concludes that the media executives viewed environmental news stories as important, but not newsworthy. This journalistic assessment is observed in the media's news and editorial comments.<sup>4</sup>

Althoff's pessimistic findings are accompanied by a more optimistic one. He states the Kansas public did receive its share of environmental news from the national news media, but the effects on the public are unknown.<sup>5</sup> Unfor-



tunately, no hard data exists to clarify the unknown effects or lack of effects on the Kansas media audiences.

Bowman and Hanaford investigated the "gatekeepers" of the general circulation magazines during a period from January, 1971 to December, 1975. Their conclusion is not as hopeful as Althoff's. Bowman and Hanaford conclude:

The mass media have considerable potential with which to inform the public. The evidence presented here demonstrates that general circulation magazines give but minimal coverage to one of the most significant issues in the last part of the century.<sup>6</sup>

The Althoff and Bowman/Hanaford studies focus on beliefs and practices of those who control what news is presented to the public and what stories are deemed non-newsworthy. A pessimistic air runs rampant through these studies and offers a hopeless outlook on the environmental education by the media of the public.

A pre-Earth Day commentary was written, in part, by David M. Rubin. In 1968, McCall's magazine published an article pointing to potentially dangerous local water supplies. Those cities named as having questionable water supplies might have decided to investigate their local problem with the help of the local media. As Rubin points out, "A few did, but the majority gave the story a quick washout."<sup>7</sup>

Reasons for the "washout" are listed by Rubin as city economic considerations, politically motivated city officials, and the media not perceiving the story as newsworthy.<sup>8</sup> Rubin considers these reasons as poor excuses and views the

responsible journalistic approach to be one of investigating the problem thoroughly and reporting it to the public before the problem becomes worse.<sup>9</sup>

Rubin presents his ideas of the responsibility of the "gatekeeper," namely the newspaper editor and the station manager, by writing:

Most important, a newspaper editor should remember that to shield his community and readers from outside criticism is a dangerous practice. In a period of increasing media combination and concentration, editors should welcome every voice in the wilderness.<sup>10</sup>

It may be the welcoming of every voice in the wilderness that has compounded the problem of disseminating environmental news. Wiebe presents a theory of "well-informed futility" based on the assumption that there are many environmental facts presented to the reader. The readers perceive these problems as being too numerous to assimilate into their lives and, as a consequence, become apathetic. As a result of this apathy, the public belief is that the problems presented are of no concern.<sup>11</sup>

Berelson expressed this same concern about the effects of overinforming the public. He warns:

. . . effects upon the audience do not follow directly from or in correspondence with the intent of the communicator or the content of the communication. . . . The predisposition of the reader or the listener are deeply involved in the situation, and may operate to block or modify the intended effect or even to set up a boomerang.<sup>12</sup>

While there are many factors with which a communicator must contend, and while the anticipated effects on the

public are not always predictable, Berelson contends that "the communications media are the most effective when their reportorial and interpretive contents are in congruence."<sup>13</sup>

Thus far, the research and opinions presented concern themselves with the reasons environmental stories are and are not being disseminated and the effects on the public. Researchers haggle over the problems of "gatekeepers'" attitudes toward the environment and how the media can avoid creating an apathetic public climate. This problem of apathy is by no means unique to environmental issues.

#### Environmental News Studies

The most encompassing of all environmental research studies conducted in the past decade is an ex-post facto study which examines with content analysis disseminated environmental news. The researchers attempted to answer the question, "What has been presented to the public?"

Hungerford and Lemert, in 1973, analyzed the news content of Oregon's 20 general circulation dailies from a constructed week in 1970. It was the researchers' hypothesis that environmental news stories would focus outside the state, thus creating the public opinion that environmental problems belonged to other communities, but not their own. This type of public opinion was coined "Afghanistanism" by Jones in 1948.<sup>14</sup>

Lemert and Hungerford conclude "When local staffs do environmental stories . . . they usually write about places

just up the road apiece."<sup>15</sup>

The study also finds the coverage of environmental news heavily reliant upon governmental news sources.<sup>16</sup> A similar conclusion is presented by Sachsman in a 1976 California news study.<sup>17</sup>

Lemert and Hungerford conclude the study on a somber note, similar to opinions presented earlier. They write:

By concentrating on other locations, local newspapers may be helping national news media to create and maintain an agenda upon which somebody else's environmental problems always are more important, and more serious than your own.<sup>18</sup>

Murch agrees with the conclusion of Lemert and Hungerford. Murch suggests that a hybrid type of "Afghanistanism" exists in population attitudes toward environmental news.<sup>19</sup> During his survey, conducted one month prior to Earth Week, Murch observed that local environmental news accounted for less than 10% of the entire news story population.<sup>20</sup> This observation, along with responses of the public, tends to confirm the "Afghanistanism" theory.

In a previously cited study, Althoff quantified his findings on environmental news stories. He notes that only half of the stories written in the Kansas newspapers were locally written and no more than 10 stories per month were tallied.<sup>21</sup>

The most extensive and cited study concerning environmental news was conducted by Rubin and Sachs.<sup>22</sup> How well does the press serve as the public watchdog in environmental issues? What keeps the press from better performing the

role? Rubin and Sachs attempted to answer these questions based on material gathered in 1973 in the San Francisco Bay area.

The authors gathered environmental facts and figures from all available sources in San Francisco. Various government water projects were investigated, the business community was tapped for any valuable information, and environmental reporters were surveyed. A commentary is presented to discuss pressures on these reporters. Information access is discussed in relation to public access of governmental projects connected with environmental stability.

The list of areas discussed goes on, and it can be seen the study is quite extensive. The section of the study which is of particular interest to this investigation concerns the information explosion of environmental affairs. In the chapter entitled, "Information Explosion," Rubin and Sachs conclude:

Although the quantity of coverage has increased, it is legitimate to wonder how useful individuals and professionals in environmental fields have found this environmental reporting and what the quality of that coverage is.<sup>23</sup>

#### Hypotheses

The argument pervasive throughout the literature, either stated or implied, is whether the mass media affect the audience's perception of the environmental topics around them. A basic principle of this proposed paper is that the

media do have effects on their audiences, and therefore, the message, or content, presented is important.

To study the message, namely the environmental news coverage in The Daily Oklahoman and The Tulsa World, is the purpose of this investigation. To achieve this purpose, the following problem statement is presented:

Are there significant differences between The Daily Oklahoman and The Tulsa World in environmental news coverage during the period starting January 1, 1980 and ending December 31, 1980?

More specifically, with regard to the important factor of news locale and the possible result of "Afghanistanism," the following hypothesis is presented in view of the problem statement:

1. More environmental news stories will originate outside the city of publication and its immediate surrounding area than will originate inside the city of publication and its immediate surroundings in both The Daily Oklahoman and The Tulsa World.

In view of the "gatekeeper" role, the editorial position of a newspaper can be ascertained from the editorial content. Since this project is concerned with amount of environmental coverage, it is this author's belief that the amount of editorial content can permit various assumptions to be made from this project's findings with regard to editorial climate and environmental reporting. It is for this reason the following hypothesis is presented:

2. More environmental editorials will originate outside the city of publication and its immediate surrounding area than will originate inside the city of publication and its immediate surroundings in both The Daily Oklahoman and The Tulsa World.

News sources of environmental stories have proven to be important to the factual content and the attention paid to a news story either by the media or the public. The extensive use of governmental sources for environmental stories have been presented and it is this author's belief that an investigation of sources by the Oklahoma state newspapers gives an indication of the information disseminated. Based on this assumption, the following hypothesis is presented:

3. Government sources will be the most cited sources of environmental news in The Daily Oklahoman and The Tulsa World.

Finally, it is important to determine the attention each paper gives to environmental issues regardless of the number of articles presented. The possibility exists that one large, in-depth article may present more facts and have a greater impact on the public's awareness. It is on this premise that the last hypothesis is presented:

4. The attention scores of environmental news stories and editorials which originate outside the city of publication and its immediate surrounding area will be significantly higher than those which originate inside the city of publication and its immediate surroundings in both The Daily Oklahoman and The Tulsa World.

ENDNOTES

<sup>1</sup>Steven E. Hungerford and James B. Lemert, "Covering the Environment: A New 'Afghanistanism'," Journalism Quarterly, Vol. 50 (Autumn, 1973), pp. 475-486.

<sup>2</sup>David M. White, "The Gatekeeper: A Case Study in Selection of News," Journalism Quarterly, Vol. 27 (Fall, 1950), p. 383.

<sup>3</sup>Phillip Althoff, William G. Greig, and Francine Stuckey, "Environmental Pollution Control Attitudes of Media Managers in Kansas," Journalism Quarterly, Vol. 50 (Winter, 1973), p. 72.

<sup>4</sup>Ibid.

<sup>5</sup>Ibid.

<sup>6</sup>James S. Bowman and Kathryn Hanaford, "Mass Media and the Environment Since Earth Day," Journalism Quarterly, Vol. 54 (Spring, 1977), p. 160.

<sup>7</sup>David M. Rubin and Stephen Landers, "National Exposure and Local Cover-Up: A Case Study," Columbia Journalism Review, (Summer, 1969), p. 17.

<sup>8</sup>Ibid.

<sup>9</sup>Ibid.

<sup>10</sup>Ibid.

<sup>11</sup>G. D. Wiebe, "The Mass Media and Man's Relation to the Environment," Journalism Quarterly, Vol. 50 (Autumn, 1973), pp. 431-432.

<sup>12</sup>John C. Malony and Lynn Slovonsky, "The Pollution Issue: A Survey of Editorial Judgments," The Politics of Ecosuicide, ed. Leslie Roos, Jr. (New York, 1971), P. 66.

<sup>13</sup>Ibid.

<sup>14</sup>Hungerford, p. 475.

<sup>15</sup>Ibid.



<sup>16</sup>Ibid.

<sup>17</sup>David B. Sachsman, "Public Relations' Influence on Coverage of Environment in San Francisco Area," Journalism Quarterly, Vol. 53 (Spring, 1976), p. 54.

<sup>18</sup>Hungerford, p. 508.

<sup>19</sup>Arvin W. Murch, "Public Concern for Environmental Issues," Public Opinion Quarterly, Vol. 35 (Spring, 1971), pp. 105-106.

<sup>20</sup>Hungerford, p. 475.

<sup>21</sup>Althoff, p. 66.

<sup>22</sup>David M. Rubin and David P. Sachs, Mass Media and the Environment: Water Resources, Land Use, and Atomic Energy in California (New York, 1973).

<sup>23</sup>Ibid, p. 107.

## CHAPTER III

### METHODOLOGY

#### Selection and Sample of Newspapers

The data for this paper were obtained from news stories and editorials, excluding letters to the editor, in issues of The Tulsa World and The Daily Oklahoman. These two daily newspapers provided an indication of environmental coverage in the state of Oklahoma. The two dailies were chosen for this study because they have the two largest circulations in the state and are recognized by the state press as the two state newspapers.<sup>1</sup>

This 1980 purposive sample drawing of each newspaper was conducted to supply data to determine the journalistic attention given to environmental stories. The year 1980 was not chosen for any specific reason except it is the last full year prior to the anticipated completion of this project.

It has been determined, by Stempl, that a randomly selected sample of 12 issues of a newspaper per year does a satisfactory job of representing a newspaper's yearly attention given to a particular subject.<sup>2</sup> This sampling procedure was validated by Jones and Carter. They conclude that a 12 issue sample was found to be comparable to the

entire yearly universe.<sup>3</sup>

Due to the expected low frequencies of environmental news stories and editorials, an every-12th-day sampling technique, described by Davis and Turner, is used.<sup>4</sup> For each paper, one day is randomly chosen from the first week of 1980. That day's issue and the issue of every 12th day throughout the entire year becomes part of the sample. For this study, this sampling procedure produced 31 issues of each daily and resulted in two samples that contained a similar issue distribution by days of the week and months of the year. Tables I and II show the daily and monthly news story and editorial distributions of the samples.

TABLE I  
NEWS STORY AND EDITORIAL DISTRIBUTION  
BY DAYS PER WEEK PER  
NEWSPAPER ISSUE

Days	<u>Tulsa World</u> , 1980	<u>Daily Oklahoman</u> , 1980
Sunday	5	5
Monday	4	4
Tuesday	5	5
Wednesday	4	4
Thursday	4	4
Friday	5	5
Saturday	4	4
TOTAL	31	31

TABLE II  
 NEWS STORY AND EDITORIAL DISTRIBUTION  
 BY NEWSPAPER ISSUES  
 PER MONTH

Months	NYT		NST	
	Tulsa World, 1980		Daily Oklahoman, 1980	
Sample Date Data January 4	3	27	3	25
February 2	2	24	2	22
March 3	3		3	
April 4	2		2	
May	3		3	
June	3		3	
July	2		2	
August	3		3	
September	2		2	
October	3		3	
November	2		2	
December	3		3	
TOTAL	31		31	

### Content Analysis

The primary research tool implemented for this study was content analysis. Laswell explains the purpose of this research tool:

It should enable the investigator to determine relationships between a given content characteristic of communications and a) characteristics of the communicator, b) characteristics of the

audience, or c) some other characteristic of the communicator.<sup>5</sup>

Berelson further explains the purpose of content analysis to be "a research technique for the objective, systematic, and quantitative description of the manifest content of communication."<sup>6</sup>

#### Environmental News Definitions and Categories

To adequately investigate environmental journalism of The Tulsa World and The Daily Oklahoman, a set of news and editorial categories was established to determine what is and is not an environmental news story or editorial. Perhaps the most successful and most used environmental categories used in content analysis studies are presented by Rubín and Sachs. Rubín and Sachs stressed the difficulty in defining the term "environment" so it would be operationally useful. Since the environment has different meanings for as many different people, it was necessary to severely limit the categories used to code news stories and editorials. This project utilized these categories as follows:

1. Air quality -- articles, stories, and editorials dealing with such problems as ozone, carbon monoxide, sulphur dioxide, and other pollutants from auto exhaust, factory emissions, and other stationary sources; their effects on animal health and plant life; their costs to the economic system; and method of control.
2. Water quality -- articles, stories, and editorials dealing with such problems as factory wastes, sewage disposal, and thermal discharges;

their effects on animal health and plant life; their costs to the economic system; and methods of control.

3. Human population explosion control -- articles, stories, and editorials dealing with the concept of overpopulation and ways to prevent or cope with the increase (i.e., an article or story on the legal problems of abortion without reference to abortion as a method of population control would not be coded.)

4. Environmental additives -- articles, stories, and editorials about natural or chemical compounds artificially introduced into the ecosystem that concentrate through successive food chains or cause an upset in the ecosystem through destruction of a species with possible detrimental effects to plant and animal life (i.e., DDT and other pesticides, herbicides, mercury, and radiation, but not cigarette smoking, flouride, or cyclamates.)

5. Management of energy producing resources -- articles, stories, and editorials discussing the supply of flowing water, coal, oil, natural gas, steam, of fissionable materials available for the production of electric power, from the perspective of expanding power needs and decreasing resources.<sup>7</sup>

Although this set of categories is hardly complete, Rubin and Sachs believe they produce a valid measure of environmental news content.<sup>8</sup> It has been the extensive use of these categories which prompted their use in this study rather than the formulation of another set.

The categorizing of each news item and editorial was facilitated by the above categories. This study also determined the locale of articles and editorials. The locales were: Local, state, regional, national, and international. These geographic news locales are defined as follows:

1. Local -- news and editorials dealing with events within Tulsa and Oklahoma City city limits and their surrounding suburbs.

2. State -- news and editorials dealing with events outside the local area but within the state of Oklahoma.
3. Regional -- news and editorials dealing with events within bordering states around Oklahoma (Kansas, Colorado, Texas, Arkansas, New Mexico, and Missouri).
4. National -- news and editorials dealing with events in states outside the regional states but within the remaining 43 states.
5. International -- news and editorials dealing with events outside the boundaries of the 50 states.

As this study progressed, low frequencies of regional news stories and editorials became apparent. This prohibited the incorporation of these data into an analysis crossbreaks. Without rejecting valuable information, the regional and national geographic news locales were combined. This necessary combination prompted a new operational definition for national news:

4. National -- news and editorials dealing with events outside the Oklahoma state boundaries but within the 49 remaining states.

#### Attention Scores

As each story was determined to be an environmental news story or editorial, and after each item's locale was determined, an "attention score" was assigned to it. The attention score is a content analysis tool devised in 1964 by Budd for his analysis of the daily press of Australia and New Zealand.<sup>9</sup> The attention score attempts to measure the variety of factors which Budd believed to be important to "news play." In other words, "How much emphasis was a news

story or editorial given on the basis of location on the page, headline size, and location in the issue?"

Budd's breakdown of the scoring criteria for attention scores is as follows:

1. A story with a headline two columns wide or wider gets one point.
2. A story carrying a headline longer than half the number of columns on the page gets two points.
3. A story whose first line of text appears above the fold, the middle of the page, gets one point.
4. A story that is three-fourths of a column in length, including the headline and any accompanying photographs, gets one point.
5. A story on page one, the editorial page, other departmental or section pages, gets one point.<sup>10</sup>

This measurement raises two questions concerning this investigation. How much emphasis or attention is given to geographic news locales with respect to news stories and editorials? Did the two dailies differ in their play of environmental news with respect to geographic news locales?

By using attention scores, the seemingly unending task of counting column inches to estimate a "news hole," the space available for non-advertising copy, was avoided in this study. Budd found the attention score valuable for comparing news category coverage. He concluded:

. . . the attention scores devised for this investigation shows results highly consistent with those obtained from the measurement of column inches or the counting of items, not only in subject-matter categories, but in direction categories as well. The writer feels that perhaps the attention score, because of the greater number of variables covered by the measure, was more discriminating than the sole measure of column inches or item count.<sup>11</sup>



Budd further concluded that by dividing total attention scores by the number of items in each category, an average item score can be determined on a scale from 0 to 5. This score would enable one to reveal consistently strong play of a subject-matter category.<sup>12</sup> Finally, since the attention score is an ordinal measure, or interval-level measurement, the statistical usefulness increases.

#### Testing of Hypotheses

Hypotheses 1, 2, and 3 were tested with chi-squares, a statistical tool developed to ascertain relationships between frequencies in categories. This procedure compares observed frequencies with those theoretically expected to determine any differences. One can assume, under the null hypothesis, the differences between observed and expected frequencies not to be statistically significant. If the differences did not occur by chance, one would reject the "no difference assumption," and draw the appropriate conclusions. For this study, a "no difference assumption" was rejected if the observed frequencies occurred by chance less than five times out of 100, the .05 significance level.

Hypothesis 4, the emphasis given environmental news stories and editorials with respect to locale, was dealt with by analysis of variance. This tool is used "to test the probability that the observed differences between two or more means (treatment groups) could have occurred by chance or error fluctuation."<sup>13</sup> For this study, the analysis of

variance was used to determine if the two dailies gave significantly different news play, measured by attention scores, to news stories and editorials with regard to geographic local. *hyp 5*

Since one-way analysis of variance only tests high and low treatment group mean differences, post-hoc, difference-between-means tests were utilized to determine the differences between various pairs of mean attention scores. The post-hoc test procedure uses t-scores and standard error of difference among treatment group means.<sup>14</sup>

If significant differences in attention scores were found, an eta correlation was computed to test the strength of relation between news and editorial locale and news play. *geographical region*  
The correlation clearly demonstrated what proportion of the total variance was "explained" by the news and editorial categories.<sup>15</sup>

The attention scores examined in this study provided information about how environmental news was presented by The Tulsa World and The Daily Oklahoman. Examination of news sources gave an indication as to the type of information disseminated to the public. Any significant differences in news locale provided clues, in view of past studies, to public opinion on environmental matters. Finally, editorial locale frequencies helped ascertain the editorial position of both state newspapers.

#### ENDNOTES

<sup>1</sup>Dr. William R. Steng, Personal Communication, Stillwater, Oklahoma, May 6, 1981.

<sup>2</sup>Guido H. Stempl III, "Sample Size for Classifying Subject Matter in Dailies," Journalism Quarterly, Vol. 29 (Summer, 1952), pp. 333-334.

<sup>3</sup>Robert Jones and Roy Carter, "Some Procedures for Estimating the 'News Hole' in Content Analysis," Public Opinion Quarterly, Vol. 23 (Fall, 1959), pp. 399-403.

<sup>4</sup>James F. Davis and Lester W. Turner, "Sampling Efficiency in Quantitative Newspaper Content Analysis," Public Opinion Quarterly, Vol 15 (Winter, 1952), pp. 762-763.

<sup>5</sup>Harold Laswell, The Language of Politics, (New York, 1949), p. 40.

<sup>6</sup>Ole R. Holsti, Content Analysis for the Social Sciences and Humanities, (Massachusetts, 1969), p. 3

<sup>7</sup>David M. Rubin and David P. Sachs, Mass Media and the Environment: Water Resources, Land Use and Atomic Energy in California, (New York, 1973), pp. 55-56.

<sup>8</sup>Ibid.

<sup>9</sup>Richard W. Budd, "Attention Score: A Device for Measuring News Play," Journalism Quarterly, Vol. 41, (Spring, 1964), p. 259.

<sup>10</sup>Ibid, p. 260.

<sup>11</sup>Ibid, p. 262.

<sup>12</sup>Ibid.

<sup>13</sup>Dr. Walter J. Ward, Personal Communication, Stillwater, Oklahoma, April 3, 1981.

<sup>14</sup>Ibid.

<sup>15</sup>Ibid.

## CHAPTER IV

### FINDINGS AND DISCUSSION

What kind of picture of the environment did the readers of The Tulsa World and The Daily Oklahoman get in 1980? This question hopefully is answered with regard to the findings presented concerning the locale of environmental news stories and editorials, sources used, and the emphasis given in each paper to the categories in relation to locale.

#### Frequency Analysis

Concerning the environmental picture presented to the Oklahoma reader by news stories, Table III shows no differences in the frequencies of city and surrounding area stories, state, national, and international stories presented by each state newspaper. These differences in story frequency in each locale were not significant ( $p > .05$ ) since the computed chi square value of 1.692 did not equal or exceed the table value of chi square for  $df=3$  at the .05 level of probability. From this data, it can be said that the observed differences between the news locales frequencies with regard to newspaper issue could occur by chance more than 10 times in 100. In other words, the number of news stories presented in each newspaper was not related to

the locale of the stories. Also, there are no interactive effects between the papers with regard to locale. In other words, the papers presented a similar number of environmental news stories, regardless of locale. It is this insignificant difference that leads to the rejection of Hypothesis 1 -- a significant difference exists between news locale frequencies in both Oklahoma dailies.

TABLE III  
 FREQUENCIES OF NEWS STORY LOCALE  
 IN THE TULSA WORLD AND  
THE DAILY OKLAHOMAN

Locale	<u>Tulsa World</u> 1980	<u>Daily Oklahoman</u> 1980	Total
Local	16	11	27
State	17	16	33
National	19	12	31
International	9	11	20
TOTAL	61	50	111

$$x^2 = 1.692 \quad p > .05 \text{ at } df=3$$

It should be noted, however, that although frequency differences were not significant, a general overview of Table III shows fewer local than state news stories in both newspapers. Also, both papers presented more national news

stories than local news stories. No differences were found between papers in reporting international news. International news had fewer news stories presented than Local, State, and National locales. The Local, State, and National locales observations indicate the "Afghanism"<sup>1</sup> trend presented by Hungerford and Lemert, which states that more published environmental news will originate in locales farther away from a newspaper than in the immediate area of the same paper.

A similar finding is also shown in Table IV concerning the environmental picture presented by the editorial content of The Tulsa World and The Daily Oklahoman. Once again, there is no significant difference ( $p > .05$ ) between editorial frequencies in each locale with regard to newspaper. The computed chi square value of .859 did not equal or exceed the table value of  $\chi^2$  for  $df=3$  at the .05 level of probability. With the insignificant difference, it can be assumed that the observed differences between the editorial locales, with regard to newspapers, could occur by chance more than 10 times in 100. This finding concludes that the number of editorials presented in each newspaper is not related to the locale of the editorial. Also, there is insignificant interaction between the papers with regard to locale. These are the insignificant interactions which allow for the rejection of Hypothesis 2 -- a significant difference exists between the editorial frequencies of each locale in each Oklahoma paper.

TABLE IV  
 FREQUENCIES OF EDITORIAL LOCALE  
 IN THE TULSA WORLD AND  
THE DAILY OKLAHOMAN

Locale	<u>Tulsa World</u> 1980	<u>Daily Oklahoman</u> 1980	Total
Local	11	7	18
State	8	8	16
National	18	11	29
International	9	8	17
TOTAL	46	34	80

$$x^2 = .859 \quad p > .05 \text{ at } df=3$$

Although the editorial frequency differences were not significant, a general overview of Table IV shows both papers having more national editorials than other locales. The Daily Oklahoman had the fewer local editorials than The Tulsa World. These observations, although insignificant, indicate the possibility of "Afghanistanism."<sup>2</sup>

In order to get an indication of the content in environmental news, news sources, specifically government and nongovernment, were investigated. If one type of source was used significantly more, conclusions as to slanted journalistic practice might be appropriate. Table V shows a significant difference between sources used with regard to locale in the two state newspapers. These differences were

significant ( $p < .05$ ) since the computed chi square value of 11.31 exceeded the table value of chi square for  $df=3$  at the .05 level of probability. From this data, it can be said that the observed differences between the news locales, with regard to sources used, could occur by chance less than five times in 100. A C contingency coefficient of .3 indicated a moderately weak relationship between news locale and sources used, with regard to newspapers.

TABLE V

FREQUENCIES OF GOVERNMENT AND NONGOVERNMENT SOURCES  
OF NEWS STORIES USED BY THE TULSA WORLD  
AND THE DAILY OKLAHOMAN

Locale	Tulsa World 1980		Daily Oklahoman 1980		Total
	Gov't	Nongov't	Gov't	Nongov't	
Local	5	11	5	6	27
State	7	10	5	11	33
National	14	5	7	5	31
International	5	4	5	6	20
TOTAL	31	30	22	28	111

$$\chi^2 = 11.31 \quad p < .05 \text{ at } df=3$$

Table V shows a significant difference between sources used and locale. The locale frequencies (main effects) are



not significant. However, the significance is evident between the papers' use of government and nongovernment sources with regard to locale. While both papers used more nongovernment sources in reporting local and state news stories, The Tulsa World used significantly more nongovernment sources in reporting local news than did The Daily Oklahoman. Both papers used more nongovernment sources when reporting state news. The Tulsa World used more government sources in covering the national scene than did The Daily Oklahoman. Finally, Table V shows no difference in source use of either paper in international news coverage.

Since the findings indicate that there are significant differences between the number of government and nongovernment sources used in each newspaper, Hypothesis 3 is accepted with a note that differences in newspaper use are evidenced. Therefore, it can be concluded that there is significant interaction between the dailies' use of sources with regard to locale.

#### Attention Score Analysis

As previously stated, the attention score attempts to measure a variety of factors, namely page play, headline size, and location, to determine the emphasis given by a newspaper to a news item. This tool avoids the task of column inch counts. A score of 0 to 5 is obtained for each item and, since the scores are an ordinal measure, the statistical usefulness of the data is increased.

Upon investigating the emphasis, or attention scores, given by The Tulsa World and The Daily Oklahoman to news stories and editorials, significant differences were found.

Table VI shows the complete breakdown of the analysis of variance performed on the compiled attention scores. Only one main effect, Between Locales, is significant to the .05 level of probability. That is to say, there is an indication that there is a significant difference between some of the locale mean attention scores. In other words, there is a relationship evidenced by the eta correlation ratio which is computed to be .36. This means that 13% of the variance in play is explained by locale. This is a weak relationship, at best. Significant differences in Locale mean scores will be discussed later in this chapter.

The other main effects, shown on Table VI, Between Newspapers, Between News Stories and Editorials, are not significant with  $F = 2.27$  and  $1.67$ , respectively. The eta correlation for Between Newspapers and Between News Stories and Editorials indicate a very weak relationship with both main effects accounting for approximately 1% of the variance.

Table VI shows the interaction of the variables. Only Newspaper Locale interaction is shown to be significant to the .05 level of probability. An eta correlation of .21, or 4% of the variance explained, indicated a weak relationship between newspaper and locale regarding the emphasis given to environmental news and editorial items. The interactive

effects of Newspaper and Locale will be discussed later in the chapter.

*hyp 5*

TABLE VI  
ANALYSIS OF VARIANCE TABLE -- ATTENTION SCORE COMPARISON  
OF NEWSPAPER-BY-LOCALE-BY-ITEM CATEGORIES,  
TULSA WORLD AND DAILY OKLAHOMAN, 1980

Source	df	ss	ms	F	p	eta
Total	190	214.29	-	-	-	-
Between Newspapers	1	2.25	2.25	2.27	ns	.11
Between News stories/ Editorials <i>Items</i>	1	1.66	1.66	1.67	ns	.10
Between Locales ✓	3	23.40	7.80	7.90	p<.05	.36
Newspaper X News/ Editorials <i>Items</i>	1	.72	.72	.73	ns	.06
Newspaper X Locales	3	7.75	2.58	2.61	p<.05	.21
News/ Editorials X Locales <i>Items</i>	3	1.75	.58	.59	ns	.10
News/ Editorials X Locales X Newspapers <i>Items</i>	3	4.18	1.39	1.40	ns	.15
Error	175	172.58	.99	-	-	-

The three remaining interactions, Newspaper X News/ Editorial, News/Editorial X Locales, and News/Editorial X Locale X Newspaper, all are insignificant (p>.05) with F = of .73, .59, and 1.40, respectively. These interactions

accounted for .3%, 1%, and 2% of the variation in play, respectively. In other words, there were no interactive effects between News/Editorial and the Newspaper and Locale variables.

With main effect of Locale being significant, with  $F = 7.9$ , ( $p < .05$ ), Table VII shows that the significant difference is between International and the other three locales, Local, State, and National. With a critical difference between any pair of mean attention scores in Table VII being .85, ( $p < .05$ ), it is indicated that a similar emphasis is placed on Local, State, and National item categories. International item categories were significantly less emphasized in comparison to the other three locales. In summary, the locale variable is significant in this relation to attention scores, with regard to international news. Local, State, and National mean attention scores were similar, but significantly higher than the International mean attention score.

As stated earlier in this chapter, the interaction of Newspapers X Locales is shown to be significant. In order to determine where the interaction is found, post-hoc, difference-between-means tests were conducted.

Attention scores for Local and State items were not related to Newspaper or type of item (News or Editorial). The two Locale scores were similar on all counts and significantly higher than mean attentions assigned to items pertaining to the International Locale on all counts.

TABLE VII

MEAN ATTENTION SCORES: NEWSPAPER-BY-LOCALE-BY-ITEM  
CATEGORIES (NEWS AND EDITORIALS)

Locale	<u>Tulsa World</u> 1980		<u>Daily Oklahoman</u> 1980		Mean Totals
	<u>News</u>	<u>Editorial</u>	<u>News</u>	<u>Editorial</u>	
Local	2.56	2.45	1.82	2.00	2.21
State	2.71	2.63	2.00	2.50	2.46
National	3.05	2.77	1.92	2.27	2.50
International	1.11	1.44	1.64	2.25	1.61
MEAN TOTALS	2.36	2.32	1.85	2.26	

The higher attention assigned to National over the International items, however, was due mostly to the high mean attention scores of news stories and editorials in The Tulsa World.

Table VIII shows a breakdown of mean attention scores of The Tulsa World's National and International items adjacent to The Daily Oklahoman's items. The critical difference between any pair of mean attention scores in Table VIII is .85, ( $p < .05$ ).

From Table VIII, one can see that National items hold the attention score edge over International items, clearly due to the higher ratings of The Tulsa World's news and editorial items (3.05 v. 1.11 and 2.77 v. 1.44, respectively). Mean attention scores between the National and

International items in The Daily Oklahoman are too small to have occurred by anything other than chance. In view of data presented in Tables VII and VIII, Hypothesis 4 is validated, since significant differences did occur between news and editorials inside the city of publication and news and editorials locales outside the city of publication.

TABLE VIII  
MEAN ATTENTION SCORES: INTERACTION OF  
LOCALES AND ITEM CATEGORIES

Locale	Item Categories				Mean Totals
	<u>Tulsa News</u>	<u>Oklahoman News</u>	<u>Oklahoman Editorials</u>	<u>Tulsa Editorials</u>	
National	3.05	1.92	2.27	2.77	2.50
Intern'l	1.11	1.64	2.25	1.44	1.61
MEAN TOTALS	2.08	1.82	2.26	2.11	2.06

The above data indicate similarities between The Tulsa World and The Daily Oklahoman in their coverage of environmental news. The same number of articles and editorials in each paper leave the reader with a not too difficult choice as to which one to read to find some environmental reporting.

Differences were indicated in source use by each paper, with regard to locale. Also, The Tulsa World emphasized national news more with other Locales receiving similar emphasis by both papers.

A question which pervades this entire chapter is "Are journalists reporting the environment in a balanced way?" The data would seem to answer in a positive vein. In terms of numbers, The Tulsa World emphasized national more than The Daily Oklahoman. Local, state, and national news are given similar emphasis by the state newspapers, which would lessen the possibility of an Oklahoma version of environmental "Afghanistanism." This can be a clear indication of balanced reporting.

Environmental news is once again in the spotlight, with its various chemical dumps, offshore drilling controversies, and snail darter fiascos. One may hope that further investigation of environmental reporting may spur more effort on the part of the media to disseminate environmental news to teach and inform the public. From this effort, it is hoped the public will achieve an awareness of their environment and further the cause of protecting and understanding their Earth.

#### ENDNOTES

<sup>1</sup> Steven E. Hungerford and James B. Lemert, "Covering the Environment: A New 'Afghanistanism'," Journalism Quarterly, Vol. 50 (Autumn, 1973), pp. 475-486.

<sup>2</sup> Ibid.



## CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

This study presented three questions in order to answer the ultimate question, "Are there any significant differences between news stories and editorial frequencies and attention scores with regard to locale in The Tulsa World and The Daily Oklahoman?

a) Do both dailies use more national and international environmental news and editorials than local and state environmental news and editorials?

The answer is a qualified "No." The findings reveal that the number of news stories and editorials was not related to the locale of the news items. Upon investigation of the interactive effects, there was no difference between the papers with regard to the number of news stories or editorials. Therefore, there is no significant difference in the number of locales reported or editorialized, and the newspapers report and editorialize a similar number of news items.

However, although not significant, there were fewer local than state stories reported in both papers. More national news than local news was presented by both papers.

These general findings could be an indication of a trend towards "Afghanistanism." This trend was defined as the tendency for newspapers to present more environmental news items which originate outside their immediate publishing area.<sup>1</sup>

The significant findings give reason to assume that in picking up either paper, a reader will receive a similar account of what is going on in his city, his state, his country, and his world.

b) What sources do the dailies use to obtain environmental news?

To answer this question, the term "source" was divided into government and nongovernment to facilitate the ease of analysis. The findings indicated significant differences between sources used and locale. Both papers used more nongovernment sources in reporting local and state news, but upon closer examination, The Tulsa World used significantly more nongovernment sources in reporting local news than did The Daily Oklahoman. Both papers used more nongovernment sources covering state news. The Tulsa World used more government sources than The Daily Oklahoman in covering the national scene and there were no source differences between The Tulsa World and The Daily Oklahoman in reporting international news.

c) What importance do the two dailies give to environmental news and editorials as to page play, headline size, and page location?

Attention scores were used to investigate this question. One of three main effects, Between Locales, showed an

indication of a weak relationship with emphasis given to news items in each newspaper. At closer examination, it was determined that Local, State, and National locales were given similar attention, but International news items received significantly less attention.

The investigation of variable interaction revealed one significant finding. Newspaper X Locale was a weak relationship with the interactive effect significant because the National news items had a higher attention score than International news items.

This study has uncovered some significant differences between The Tulsa World and The Daily Oklahoman regarding their coverage of environmental news. There is room for debate, however, as to whether the differences really will contribute to deciding which paper to choose to obtain more and/or "better" environmental news.

This study is not the final word as to environmental coverage by the Oklahoma press. It is the first and, hopefully, not the last.

#### Conclusions

An analysis of news story and editorial frequency revealed nonsignificant differences between locale and the number of news items used in The Tulsa World and The Daily Oklahoman. However, a general overview of news item frequencies presents a slight indication that the Lemert/Hungerford theory of environmental "Afghanistanism," dis-

cussed in Chapter II, may be applicable to the Oklahoma media.

Although nonsignificant, these frequency generalizations may point to a trend which may be growing in Oklahoma journalistic circles. This generalization does not call for concern at this time, but must be kept in mind for future reference.

The public expects much from the news media. The reader wants to be entertained, informed and advised. More important, although not perceived by the public, is the media's "watchdog" responsibilities. The media reports on city, state, and national industries and officials to give assurance that the people are doing their jobs ethically and in the public's best interest.

The "watchdog" concept can easily be extended to environmental concerns. The media should keep the readers aware of the environmental events and trends that affect their lives and the planet on which they live. In keeping the public aware, one must look at the source of the information, namely, the ideologies of the newspaper and more importantly, the source on which an article is based.

This study investigated the sources of environmental news stories and found significant differences between the locale of news stories and the sources used. With regard to locale, source use generally leaned toward either government or nongovernment and only International news received an equal share of both source types. This would indicate that

that the reader of either paper is not receiving a balanced picture of environmental issues at the local, state, and national levels. The scope of this study did not attempt to place a value judgment on sources used, but it can be concluded that a danger does exist in an unbalanced number of sources used and what is disseminated to the public concerning a specific subject matter.

The government and nongovernment sectors use press releases to announce policies, plans, research data, etc.

The problem?

The danger of the press release is obvious -- they put the initial decision as to what is and is not newsworthy in the hands of the source instead of the reporter or editor. . . . Most releases are not followed up. The blattant propaganda may be edited out, but the substance is printed -- and it is the substance that the source, not the reporter, has selected. It is substance designed to help build the image and advance the aims of its source. It is, in short, public relations. But it passes for news.<sup>2</sup>

Although this pessimistic observation questions the proper use of sources, there seems to be other important questions which could be researched to supplement this study's findings. Why was there more reliance on nongovernment sources in reporting local and state news? Is it due to availability of sources? Is it the policy of the papers studied? Are there underlying factors concerning source credibility and reliability? These questions raise possibilities for future studies to be discussed later in this chapter.

Attention scores analysis revealed that local, state,

and national news and editorials received virtually the same play, with international datelines receiving significantly less.

Everyone is in agreement that environmental problems encompass the entire planet. A reader must grasp what is taking place in his own backyard before he can begin to care what is happening across the ocean. It is this idea which perhaps explains the similar coverage of Local, State, and National locales in the two Oklahoma dailies. Both papers see the "backyard" environmental problems more newsworthy, but they did present international datelines which gives the reader the sense that the problem is international.

It is interesting to note that the attention scores of local, state, and national stories would tend to discredit any possibilities of "Afghanistanism" as the frequency analysis might suggest. Again, another possibility for future research is apparent.

It is the attention score findings which give hope that environmental doomsday predictions such as Day's are only words. He predicts:

The sudden death of an individual may very well be front page news in our local newspaper. The slow, yet inevitable, death of the human species through erosion of our lifegiving environment will only rarely make the front page. More often it will be buried among feature and entertainment items, if it is mentioned at all. The reason for the difference in treatment may lie with the ability to comprehend the death of an individual while the apocalyptic is beyond comprehension. . . . We give greater prominence to that which we can grasp. News is more graspable. But the apocalyptic is rapidly becoming the norm.<sup>3</sup>

## Recommendations

There is always room for improvement in any profession, and this certainly includes environmental journalism. The first step toward the improvement of environmental news coverage would be to ask, "Should environmental coverage by the Oklahoma press be increased as to the number of stories and editorials, and should this news be given greater emphasis?"

Perhaps understated is the fact that the mass media have a considerable potential to inform the public. If the media view the environment as not newsworthy, the public, for the most part, will be hopelessly uninformed. With more news items and greater emphasis given to them, the media would be heading in a positive direction in informing the public. Cohen states:

The press may not be successful much of the time in telling the people what to think, but it is stunningly successful in telling its readers what to think about.<sup>4</sup>

This study's findings have pointed to a few areas of environmental journalism for future researchers to consider and, hopefully, investigate. The trend toward "Afghanistanism" was alluded to in the frequency analysis, but rejected by attention score findings. This area should be examined further. More frequency studies should be conducted, but more importantly, "Afghanistanism" should be examined from the point of the reader. His responses would give more conclusive answers as to the validity of the "Afghanistan-

ism" trend evidenced in this study.

Also in relation to news story and editorial frequency findings, a Q sort analysis of environmental stories would be an excellent tool to further investigate this study's frequency findings to develop more concrete conclusions as to the standing of environmental issues in this state.

The significant findings obtained for source use raise important issues that should be investigated. In addition to the questions raised earlier in this chapter, a study of government and nongovernment press release use should be conducted.

The problem of unbalanced source use could be clarified by investigating whether releases are merely duplicated verbatim, rewritten slightly, or do reporters use releases as a catalyst, using the release as a tip to develop their own stories.

The author would like to suggest several more recommendations, though they fall outside the scope of this study. These recommendations concern the content of environmental stories.

Not only does environmental news need to be reported, but the stories already reported should be re-evaluated and guidelines for the reporting of future stories should be developed. It has been suggested that environmental stories be more thorough in content. Witt concludes:

The news stories should be improved in form and substance . . . news media were seen as too pre-occupied with immediate hard news to adopt the long view necessary to meaningful environmental



reporting. Environmental problems and solutions are typically long-range. This requires in-depth treatment, with careful attention over time to the developing story.<sup>5</sup>

A similar suggestion is presented by Murch. He believes that a restructuring of environmental news content is needed. He writes:

The fact that most people now believe that pollution is a significant problem suggests that . . . the media have effectively dramatized the problem. . . . It may be time to turn from simply revealing the existence of environmental pollution to generating clear and specific proposals for dealing with it. What appears to be most needed now, at this point, are proposals that show the individual just how he can become engaged in the struggle within his own community.<sup>6</sup>

These two recommendations for improving environmental reporting would seem to be based on the assumption that people will act in response to information received if an indication on how to act is given to them. In other words, "audience members do follow the 'agenda' set for them by the media."<sup>7</sup> Why shouldn't the "agenda" include in-depth reporting and solutions which suggest reader involvement?

To provide this caliber of journalism, reporters and editors must learn about environmental problems and their underlying causes. As stated earlier, there must be an evolution of environmental reporting from crisis news to in-depth investigations.

It has been suggested that few newspapermen believe they are qualified to report, let alone comment, on the environment. von Eckhardt states:

One of our best investments a newspaper can make to its country's future is to send some of these

interested and concerned young men and women to school for a semester or two. Most universities now have courses in ecological, urban, and environmental studies.<sup>8</sup>

von Eckhardt further states:

If we are to protect our environment from irreparable damage, we must become informed, and the need for the media to be committed to that education is critical.<sup>9</sup>

Since this study is a starting point in investigating Oklahoma environmental reporting, more research and replicated studies are needed for greater generalization of the findings. The more data accumulated, the easier it will be to pinpoint the high and the low points of environmental reporting. The acknowledgment of the points will help to improve the media so as to better inform the public about the world in which they live.

This additional research will only come about with the cooperation of media specialists and environmentalists. Cooperation is the key to success since the media specialists do not know all the questions to raise to properly analyze the complicated subject of the environment. Likewise, the environmentalists many times are unaware of the Whys, Hows, and Whats of news reporting. It is evident that the investigation of environmental reporting would be greatly enhanced by pooling the expertise of both professions to provide a viable and interrelated product which both the media and the environmentalists could use.

In completing this study, several questions are raised with regard to further investigation, already presented in

in this chapter. They are:

1. What is the difference between environmental reporting at the beginning of the environmental movement, 1970, and the present? What improvement and/or regression has taken place?
2. To what extent does the newspaper medium go to insure competent and knowledgeable reporting of the environment?
3. How do the broadcast and print media compare in covering the Oklahoma environment?

Although these questions are presented for Oklahoma studies, they can easily be tailored to any state media study. It should be re-emphasized that there are very few studies which deal with specific states. Since the environment encompasses everyone and everything, it would appear that a state by state investigation would be appropriate to determine the regional trends of environmental reporting.

A study of these trends could provide evidence of shortcomings in environmental reporting. Improvements could be set in motion and exceptional reporting examples could be used as a foundation for better reporting nationwide.

The most important idea one can grasp from a study such as this is that the environment, the media, and society are all interrelated parts within themselves as well as with each other. Until this concept is internalized by all concerned, there is little hope of ever fully understanding man's position in his environment.

## ENDNOTES

<sup>1</sup> Steven E. Hungerford and James B. Lemert, "Covering the Environment: A New 'Afghanistanism'," Journalism Quarterly, Vol. 50 (Autumn, 1973), pp. 475-486.

<sup>2</sup> Peter M. Sandman, David M. Rubin, and David B. Sachsman, Media: An Introductory Analysis of American Mass Communications, (New Jersey, 1972), pp. 145-146.

<sup>3</sup> James Day, "Media for Involvement," No Deposit, No Return -- Man and His Environment: A View Toward Survival, ed. Huey D. Johnson (Massachusetts, 1970), p. 234.

<sup>4</sup> Bernard C. Cohen, The Press and Foreign Policy, (New Jersey, 1963), p. 13.

<sup>5</sup> William Witt, "The Environmental Reporter on U.S. Daily Newspapers," Journalism Quarterly, Vol. 51, (Winter, 1974), p. 703.

<sup>6</sup> Arvin Murch, "Public Concern for Environmental Pollution," Public Opinion Quarterly, Vol. 35, (Spring, 1971), pp. 704-706.

<sup>7</sup> Maxwell E. McCombs and Donald L. Shaw, "The Agenda-setting Function of Mass Media," Public Opinion Quarterly, Vol. 36 (Summer, 1972), pp. 176-187.

<sup>8</sup> Wolf von Eckhardt, "Perspective on the Press," No Deposit, No Return -- Man and His Environment: A View Toward Survival, ed. Huey D. Johnson (Massachusetts, 1970), p. 34.

<sup>9</sup> Ibid.

5  
H. space ?

BIBLIOGRAPHY

- Althoff, Phillip, William H. Greig, and Francine Stuckey. "Environmental Pollution Control Attitudes of Media Managers in Kansas." Journalism Quarterly, Vol. 50 (Winter, 1973), p. 72.
- Blackman, Carl W. "Sampling Mass Media Content: The Use of the Cluster Design." American Sociological Review, Vol. 21 (December, 1956), pp. 729-733.
- Bowman, James S. and Kathryn Hanaford. "Mass Media and the Environment Since Earth Day." Journalism Quarterly, Vol. 54 (Spring, 1977), pp. 160-164.
- Budd, Richard W. "Attention Score: A Device for Measuring News Play." Journalism Quarterly, Vol. 41 (Spring, 1964), pp. 259-262.
- Budd, Richard W., Robert K. Thorp, and Lewis Donohew. Content Analysis of Communications. New York: MacMillan Co., 1967.
- Coats, Wendell J. and Steven W. Mulkey. "A Study in Newspaper Sampling." Public Opinion Quarterly, Vol. 14 (Fall, 1950), pp. 533-546.
- Cohen, Bernard C. The Press and Foreign Policy. New Jersey: Princeton University Press, 1963, p. 13.
- Danielson, Wayne A. "Content Analysis in Communication Research." Introduction to Mass Communication Research. Eds. Ralph O. Nafziger and David M. White. Louisiana: Louisiana State University Press, 1963.
- Davis, James F. and Lester W. Turner. "Sampling Efficiency in Quantitative Newspaper Content Analysis." Public Opinion Quarterly, Vol. 15 (Winter, 1951), pp. 762-763.
- Day, James. "Media for Involvement." No Deposit, No Return -- Man and His Environment: A View Toward Survival. Ed. Huey D. Johnson. Massachusetts: Addison-Wesley, 1970, p. 234.
- Erskin, Hazel. "The Polls: Pollution and Its Costs." Public Opinion Quarterly, Vol. 36 (Spring, 1972), p. 120.

- Holsti, Ole R. Content Analysis for the Social Sciences and Humanities. Massachusetts: Addison-Wesley, 1969, p. 3.
- Hungerford, Steven and James B. Lemert. "Covering the Environment: A New 'Afghanistanism'." Journalism Quarterly, Vol. 50 (Autumn, 1973), pp. 475-486.
- Jones, Robert and Roy Carter. "Some Procedures for Estimating the 'News Hole' in Content Analysis." Public Opinion Quarterly, Vol. 23 (Fall, 1959), pp. 399-403.
- Laswell, Harold D. "Studies in Quantitative Semantics." Language of Politics. New York: Holt, Rhinehart, and Winston, 1949, p. 55.
- \_\_\_\_\_. "The Comparative Study of Symbols." Hoover Institute Studies, Vol. 1 (1952), p. 12.
- Malony, John C. and Lynn Slovonsky. "The Pollution Issue: A Survey of Editorial Judgments." The Politics of Ecosuicide. Ed. Leslie Roos, Jr. New York: Holt, Rhinehart, and Winston, 1971, p. 66.
- Markham, James W. and Guido Stempl III. "Analysis of Techniques in Measuring Press Performance." Journalism Quarterly, Vol. 34 (Spring, 1957), pp. 187-190.
- McCombs, Maxwell E. and Donald L. Shaw. "The Agendasetting Function of Mass Media." Public Opinion Quarterly, Vol. 36 (Summer, 1972), pp. 176-187.
- Murch, Arvin W. "Public Concern for Environmental Pollution." Public Opinion Quarterly, Vol. 35 (Spring, 1971), pp. 101-106.
- Rubin, David M. and David P. Sachs. Mass Media and the Environment. New York: Praeger Publishers, Inc., 1973.
- Rubin, David M. and Stephen Landers. "National Exposure and Local Cover-Up: A Case Study." Columbia Journalism Review, Vol. 8 (Summer, 1969), p. 17.
- Sachsman, David B. "Public Relations' Influence on Coverage of Environment in San Francisco Area." Journalism Quarterly, Vol. 53 (Spring, 1976), p. 54.
- Sandman, Peter M. "Mass Environmental Education: Can the Media Do the Job?" Environmental Education: Strategies Toward a More Liveable Future. Eds. James A. Swan and William B. Stapp. New York: Halstead Press, 1974.

- Sandman, Peter M., David M. Rubin, and David B. Sachsman. Media: An Introductory Analysis of American Mass Communications. New Jersey: Princeton University Press, 1972.
- Stempl III, Guido H. "Sample Size for Classifying Subject Matter in Dailies." Journalism Quarterly, Vol. 29 (Summer, 1952), pp. 333-334.
- Swan, James A. "The Environmental Crisis: Why Now?" Environmental Education: Strategies Toward a More Liveable Future. Eds. James A. Swan and William B. Stapp. New York: Halstead Press, 1974.
- von Eckhardt, Wolf. "Perspective on the Press." No Deposit, No Return -- Man and His Environment: A View Toward Survival. Ed. Huey D. Johnson. Massachusetts: Addison-Wesley, 1970, p. 240.
- White, David M. "The Gatekeeper: A Case Study in Selection of News." Journalism Quarterly, Vol. 27 (Fall, 1950), p. 383.
- Wiebe, G. D. "The Mass Media and Man's Relation to the Environment." Journalism Quarterly, Vol. 50 (Autumn, 1973), pp. 431-432.
- Witt, William. "The Environmental Reporter in U.S. Daily Newspapers." Journalism Quarterly, Vol. 51 (Winter, 1974), p. 703.

APPENDIX



TALLY SHEET

The Tulsa World

THE DAILY OKLAHOMAN

Date: \_\_\_\_\_

Page: \_\_\_\_\_

Column: \_\_\_\_\_

Headline: \_\_\_\_\_

Article Type:      News Story      Editorial

Locale:      Local      State      Regional      National  
    International

Source:      Government      Non Government

Subject Category

Attention Score

Air Quality	Headline: 2 Columns = 1
	½ # Columns/pg = 2
Water Quality	
Human Population Explosion and Control	Position: 1st Line of Text above Fold = 1
Environmental Additives	Length: ¾ Column Including Head. and Photo = 1
Management of Energy-Producing Resources	Location: Page 1, Depart., or Section Page = 1

TOTAL . . . . . \_\_\_\_\_

VITA<sup>1</sup>

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